

LA METRO CASE STUDY: Enhanced Cost Forecasting And Exposure Based Contingency Drawdown

**Presented by:
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INTRODUCTION:

- What is LA Metro
- LA Metro Capital Infrastructure Program
- FTA History Versus Metro Project Costs

LA Metro Background



- 🌐 3rd largest public transportation system in US
- 🌐 Most populous county in US at 10.4 million
- 🌐 88 incorporated cities / Service Area 1,433 mi²
- 🌐 Full-service agency across lifecycle
- 🌐 1.2 million weekday boarding
- 🌐 \$24B Currently in Construction, \$30B in Pipeline
- 🌐 \$80B infrastructure investment over 40 years
- 🌐 Preparing to host 2028 summer Olympics

Metro System Forecast

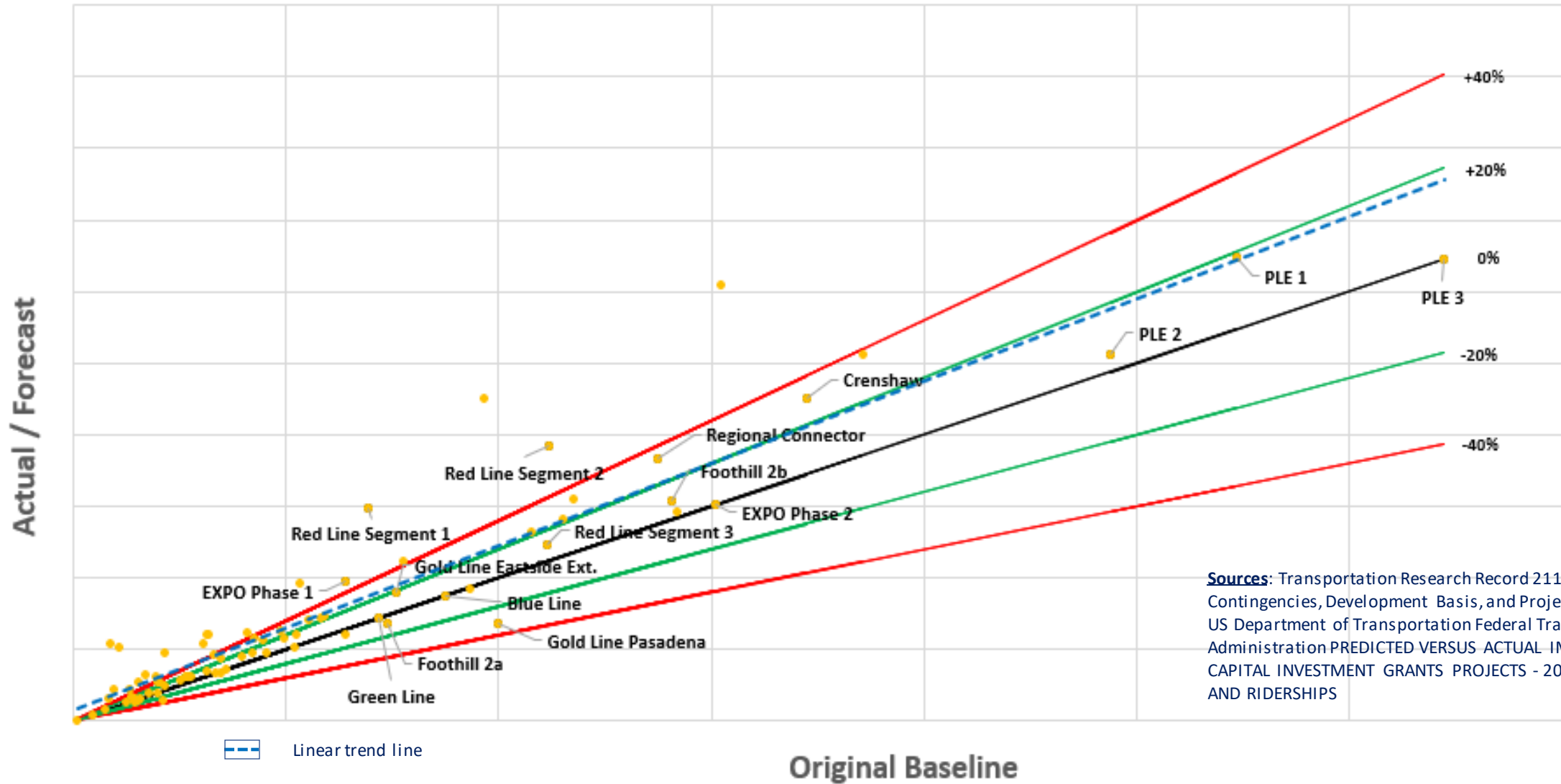
2016

Vs.

2056

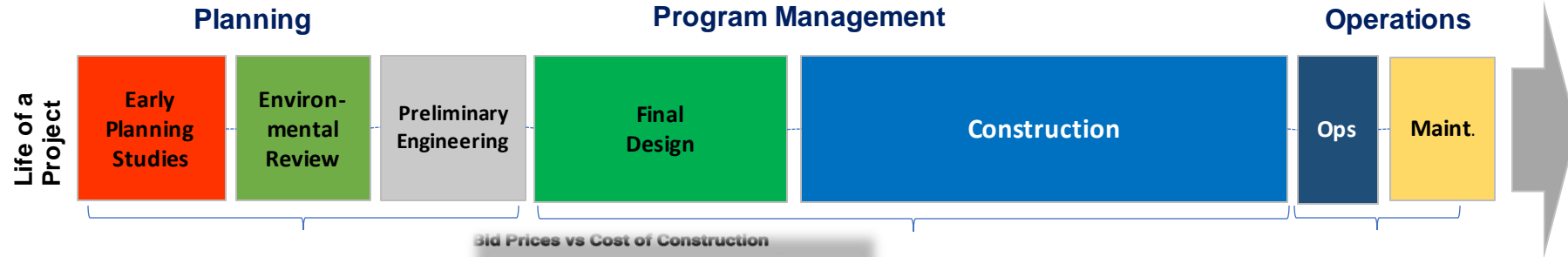


FTA Capital Investment vs. Metro Project Costs



Sources: Transportation Research Record 2111 Cost Contingencies, Development Basis, and Project Application
 US Department of Transportation Federal Transit Administration PREDICTED VERSUS ACTUAL IMPACTS OF CAPITAL INVESTMENT GRANTS PROJECTS - 2020 CAPITAL COST AND RIDERSHIPS

Metro Capital Investment Experience/Challenges



Life of Project Budget change to initial baseline¹ by environmental

30% +



Unforeseen conditions environmentally (utility, geo-, structure, community impact) created change order during construction¹, ≈12%+

Scope and Market Condition² ≈12%+

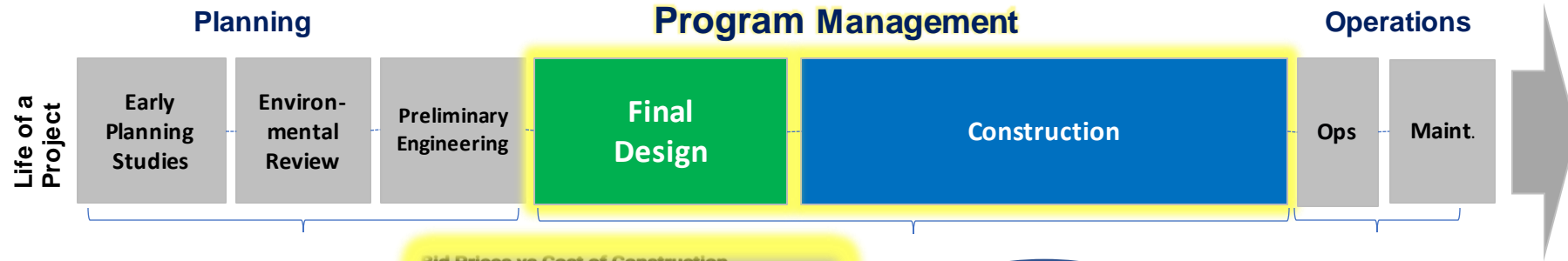


Unplanned interoperability with existing system integration and operation readiness¹, ≈6%+

1. Recent Project Experience based on Greenline AMC, Regional Connector, Crenshaw, PLE 1,2&3
2. Program Management Oral Report, "Construction Market Trend", February 2022

Increase over sales tax baseline estimate by 60%+ experienced so far

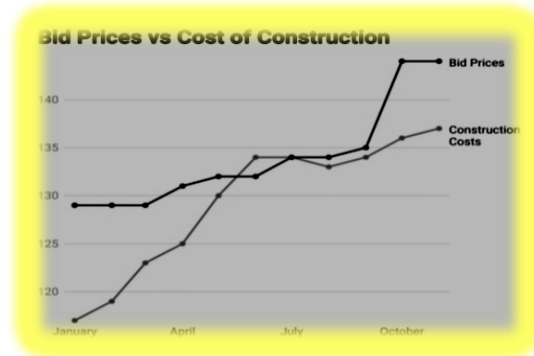
Metro Capital Investment Experience/Challenges



Life of Project Budget change to initial baseline¹ by environmental

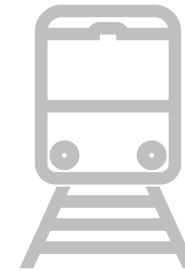


30% +



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BACKGROUND:

- Transit Project Risk Management
- Project Controls Cost Forecasting / Contingency Drawdown Procedures
- Procedural Oversight
 - Project Controls Process Review

Transit Project Risk Management



Mega Project Challenges

- 🌐 Complex and Long Duration (i.e. 10 yrs)
- 🌐 Cost and Schedule Overruns Common

FTA Risk Process Guidance

- 🌐 Formal Risk Assessment
- 🌐 Risk Based Contingencies
- 🌐 Minimum Contingency Amounts
- 🌐 Drawdown Curves

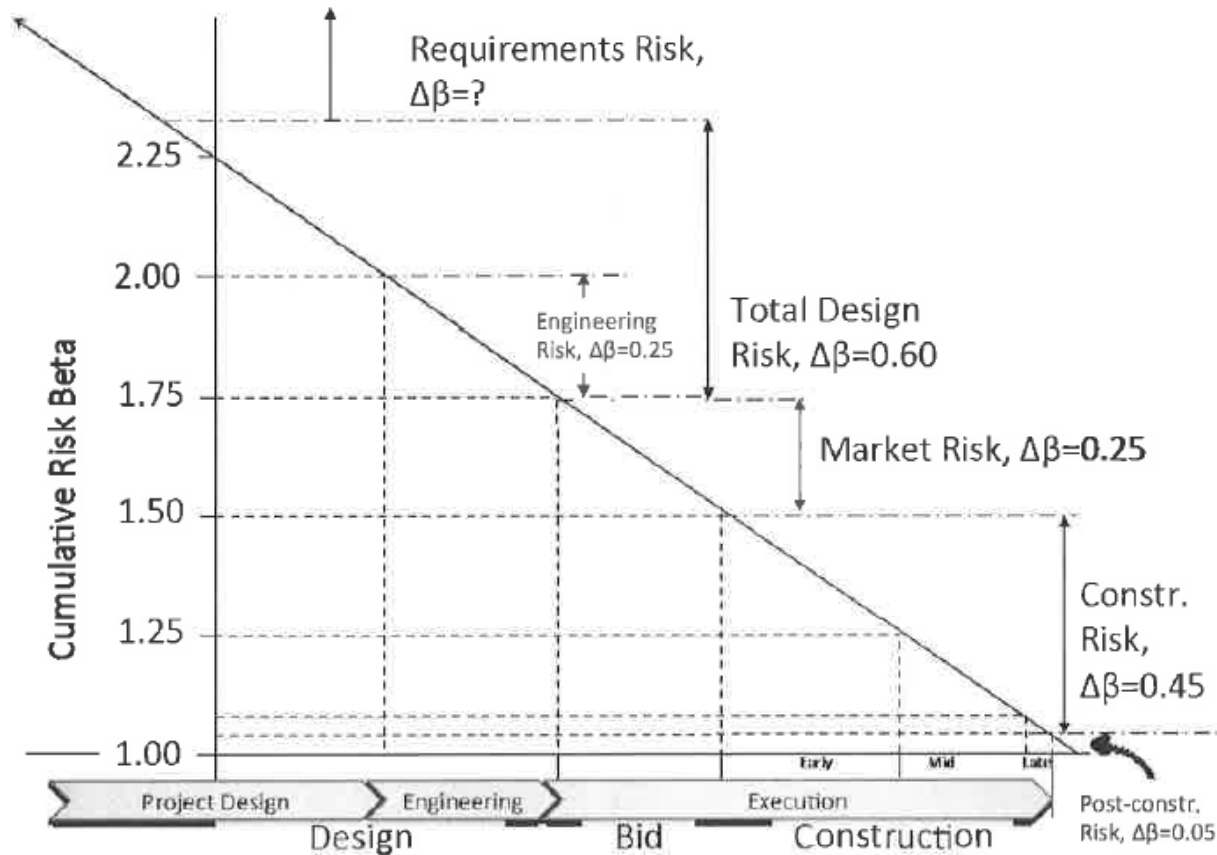
Metro's Risk Management Program

Risk Management Program:

- 🌀 Mirror FTA Oversight Procedure 40 – Risk and Contingency
- 🌀 Deliver Risk Registers for All Projects
- 🌀 Deploy Scalable Program (i.e., Qualitative/Quantitative)
- 🌀 Perform Risk Assessments at Stage Gates / Readiness Reviews
- 🌀 Facilitate Centralized Risk Tracking (Active Risk Manager)
- 🌀 Enforce Risk Procedure to Set and Manage Contingencies
- 🌀 Infuse Risk Expected Values (i.e., probability x outcome)



FTA Risk Process Guidance



- 🏗️ Engage project team for robust risk program
- 🏗️ Consider risk mitigation options and alternatives
- 🏗️ Generate risk-based cost estimates
- 🏗️ Facilitate risk review proactively early in planning
- 🏗️ Continue risk analysis thru project life cycle
- 🏗️ Perform regular cost forecasts including risks
- 🏗️ Manage contingency drawdown
- 🏗️ Participate in FTA stage gate risk assessments
- 🏗️ Perform active risk register / cost forecast updates

	Low (1)	Med (2)	High (3)	Very High (4)	Significant (5)
Probability	< 10%	10 - 50%	50 - 75%	75 - 90%	> 90%
Cost Impact	< \$250K	\$250K - \$1M	\$ 1-3 M	\$ 3-10 M	> \$10 M
Time Impact	< 1 Mth	1-3 Mths	3-6 Mths	6-12 Mths	> 12 Mths

Legend
Low (≤ 3)
Medium (3 - 10)
High (≥ 10)

FTA Recommended Contingency Levels

- FTA specified contingency targets across project lifecycle
- Required per Risk and Contingency Management Plan
- Sample contingency costs based upon \$2B project cost

Milestone	Contingency Target	Contingency \$
15% Design	40%	\$800M
Entry into Engineering – 30%	33%	\$660M
60% Design	26%	\$520M
Pre-Bid - 95% Design	20%	\$400M
Start Construction - 100% Design	13%	\$260M
20% Construction Complete	9%	\$180M
50% Construction Complete	7%	\$140M
Revenue Service Date	2%	\$40M

Source: Federal Transit Administration Oversight Procedure 40

CASE STUDY:

- Project Controls Cost Forecasting /
- Contingency Drawdown Processes
- Procedural Oversight - Project Controls Process Review

Project Control Procedure References

LA Metro Relevant Project Control Procedure References

PC01 – Work
Breakdown
Structure (WBS)

PC05 – Project
Cost Reporting
and Forecasting

PC07 – Risk
Management
Program Plan

PC09 – Schedule
Development
and Control

PC12 – Transit
Project
Contingency

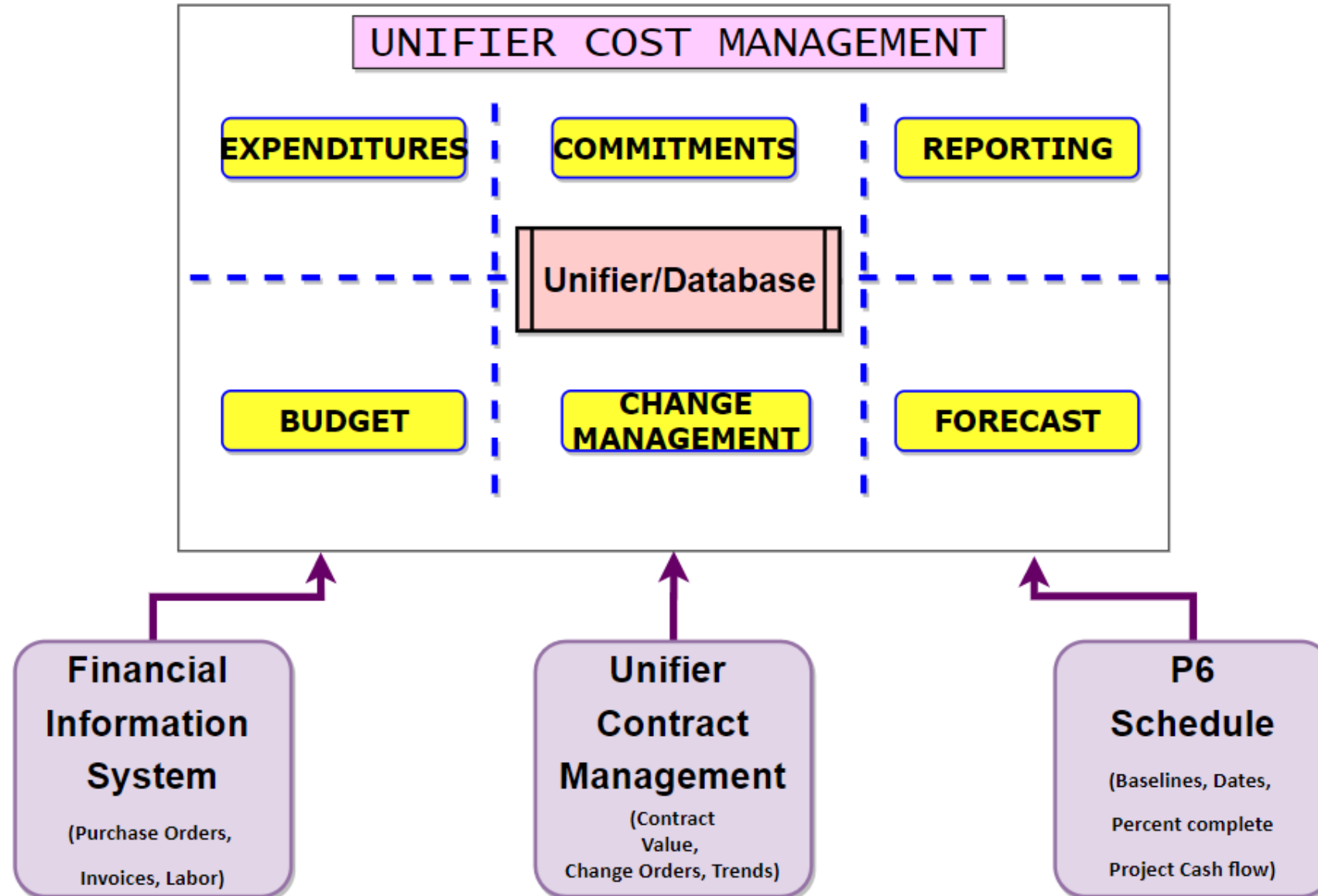
PC16 – Cost
Contingency
Drawdown

PC17 – Project
Control Process
Review

Summarized Controls Forecasting Requirements

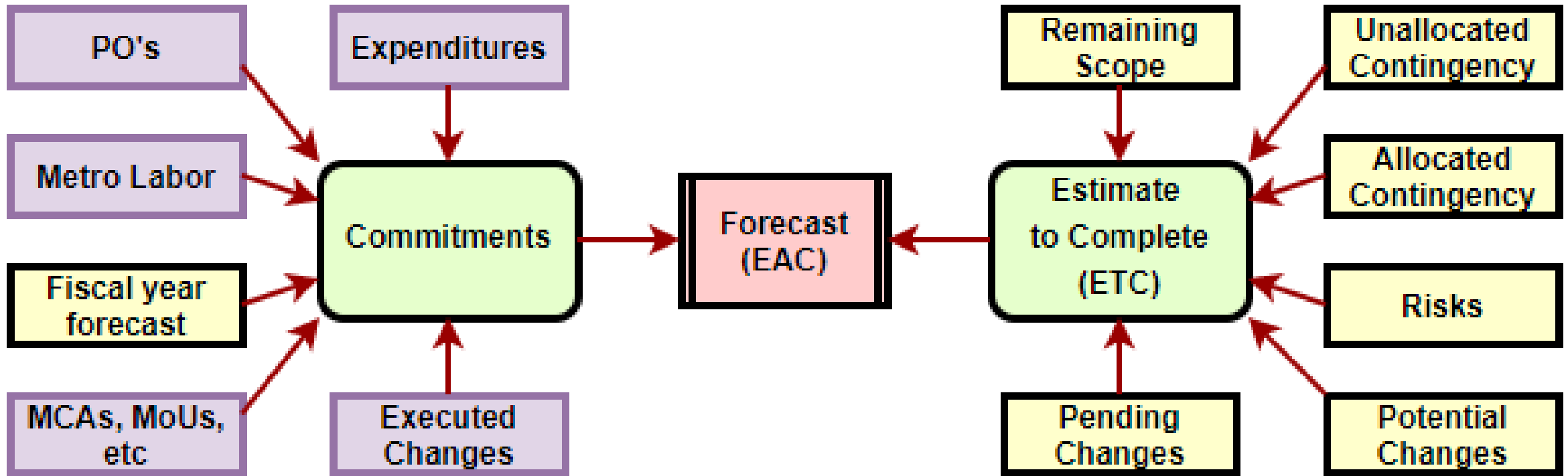
- 🔗 Manage configuration management baseline (i.e., cost, contingency, risk)
- 🔗 Implement automated cost for actuals and commitments (i.e., Oracle Primavera Unifier)
- 🔗 Perform regular risk analysis and cost forecasts
- 🔗 Assure risk register/cost forecast are in synch, noting retired and new risks
- 🔗 Measure cost and schedule performance
- 🔗 Evaluate variances including performing trend analysis
- 🔗 Monitor construction contracts and evaluate scope changes
- 🔗 Leverage automation and manage estimate to complete
- 🔗 Evaluate contingency usage and monitor drawdown
- 🔗 Cross check data for quality control, document findings

Unifier Cost Management Workflow



Forecast Management

- 🌀 EAC is a sum of Commitments and Estimate to complete (ETC).
- 🌀 Forecasts (EAC) is calculated automatically at task number level.
- 🌀 $EAC = Commitments + ETC$



Estimate To Complete (ETC)





The aggregation of all future costs likely to be incurred by the Project:

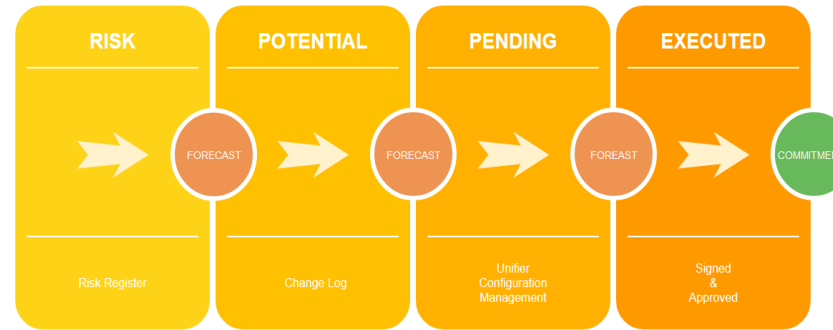
- ⚙ Remaining scope
- ⚙ New Scope: Pending/Potential changes
- ⚙ Risk Register
 - ⦿ Reflect project cost exposure
 - ⦿ Include actively managed risks
 - ⦿ Engage project subject matter experts
 - ⦿ Compute expected value for forecast
- ⚙ Known unknowns: Contingency



Change
Management

Change Management

-  Executed Changes
-  Pending Changes
-  Potential Changes
-  Risks



Change Management Log

	Reference ID	Title	MOD Amount	Status	Effective Date	No Contg Drawdown Status
	RCC21337	CN 223: Add 'l Backup Power at 7th Metro to Sppt	65,000.00	PendingChange	01/31/2020 12:00 AM	Pending
	QUA21116	QA/ PRE-REVENUE TESTING	1,000,000.00	PendingChange	09/30/2019 12:00 AM	Pending
	RCC21287	CN 187: AT&T Ductbank 1st/Rose - Construction	0.00	PendingChange	09/30/2018 12:00 AM	Pending
	RCC21335	CN 221: 7th/Metro Thicker Knock-Out Panel	200,000.00	PendingChange	12/31/2019 12:00 AM	Pending
	RCC31205	CN : Delete Option No. 10 Add Open Roof at Ala...	-2,175,000.00	PotentialChange	06/30/2019 12:00 AM	Potential
	RCC31209	CN : Minimum Wage changes in law - Security G...	1,500,000.00	PotentialChange	06/30/2019 12:00 AM	Potential
	RCC31235	CN : Redesigned Go Green X5 Fixture	150,000.00	PotentialChange	01/31/2020 12:00 AM	Potential
	CPJ41121	Risk#566: Potential impacts	187,500.00	Risk	03/31/2020 12:00 AM	Risk
	LEG41112	Risk#374: A tolling agreement between Metro an...	315,000.00	Risk	06/30/2019 12:00 AM	Risk
	CMS41117	Risk#566: Potential impacts	500,000.00	Risk	03/31/2020 12:00 AM	Risk
	THI41124	Risk#564: AT&T ductbank at 2/B threaten	32,500.00	Risk	02/29/2020 12:00 AM	Risk
	RCC41218	Risk# 502: Temple Sewer Line total costs	4,200,000.00	Risk	06/30/2019 12:00 AM	Risk
	RCC41226	Risk# 560: Re-design of Temple SS may delay	250,000.00	Risk	01/31/2020 12:00 AM	Risk

Identify/Calculate Potential Risk Exposure



ABC Project - Known Unknowns Expected Values through December 2021								
#	Threat	Exposures x1000			Average	Probability	Expected Value	Notes
		Minimum	Likely	Maximum				
1	Natural change order progression	2,900	5,800	8,700	5,800	90%	5,220	All new changes
2	Noise and/or night variances pulled anywhere on the alignment	500	5,000	7,000	4,167	5%	208	Construction limited
3	Legal Fees continue to accrue	2,000	3,500	5,000	3,500	75%	2,625	
4	Ops Rail Activation Budget requires adjustment	1,000	2,000	3,000	2,000	85%	1,700	
5	DSCs related to utilities along western end of Project	1,000	2,000	4,000	2,333	25%	583	Caution for the complexities for above known risks.
6	System cut-over	500	1,000	1,500	1,000	40%	400	Caution for the complexities for above known risks.

Allocate Risks to Cost Forecast

#	DESCRIPTION	Reconciliation Date	SCC	TASK NUMBER	FORECAST AMOUNT	Aug-21	Sep-21	Oct-21
1	Risk #213 - Lawsuit at F. Street may delay the Project and increase costs.	12/31/2021	40.08	4.3.04.11	\$600,000			
2	Risk #291 - City agency review and approval time for traffic management plans (TMP), traffic control plans (TCP) and permits may continue to delay project schedule.	10/31/2021	40.08	4.3.04.11	\$267,000			\$267,000
3	Risk#311: C. Agreement may impact costs due to extended "construction phase"	1/15/2022	40.08	4.3.04.11	\$1,875,000			
4	Risk# 317: Systems cut-over and interface issues may exceed contract scope, cost and delay schedule.	10/1/2021	40.08	4.11 & 4.3.0	\$63,000			\$63,000
5	Risk #333 Damage to F. St due to volume of work (i.e. potholing, trenching, water and power utility installation) may require extensive restoration work.	12/31/2021	40.08	4.3.04.11	\$1,688,000			
6	Risk#353: Request for replacing pavers during street restoration period	10/15/2021	40.02	3.5.01.04	\$78,000			\$78,000
7	Risk#358: Prevailing of business loss claims by small businesses outside Business Interruption Fund (BIF) may have project cost implications.	1/31/2022	40.08	4.3.04.24	\$175,000			

Contingency

Allocated or unallocated contingency can be used to fund Potential changes, pending changes and Risks

-  Allocated contingency – Contingency allocated to specific cost items addressing known potential, but uncertain changes
-  Unallocated contingency – to address unknowns or added scope

Change funded by contingency

SCC ▼	Task #	Task Desc.	Short Description	Not in Budget Amount	In Budget Amount	Contingency Amount	Amount	Total MOD Amount
10.07	3.3.01.07	UNDERGROUND TUNNEL	Funding from Alloc. Co...	2,202,485.00	0.00	0.00	2,202,485.00	2,202,485.00
10.07	3.XX.10.07	ALLOCATED CONTIGENCY ...	Funding from Alloc. Co...	0.00	0.00	-2,202,485.00	-2,202,485.00	0.00

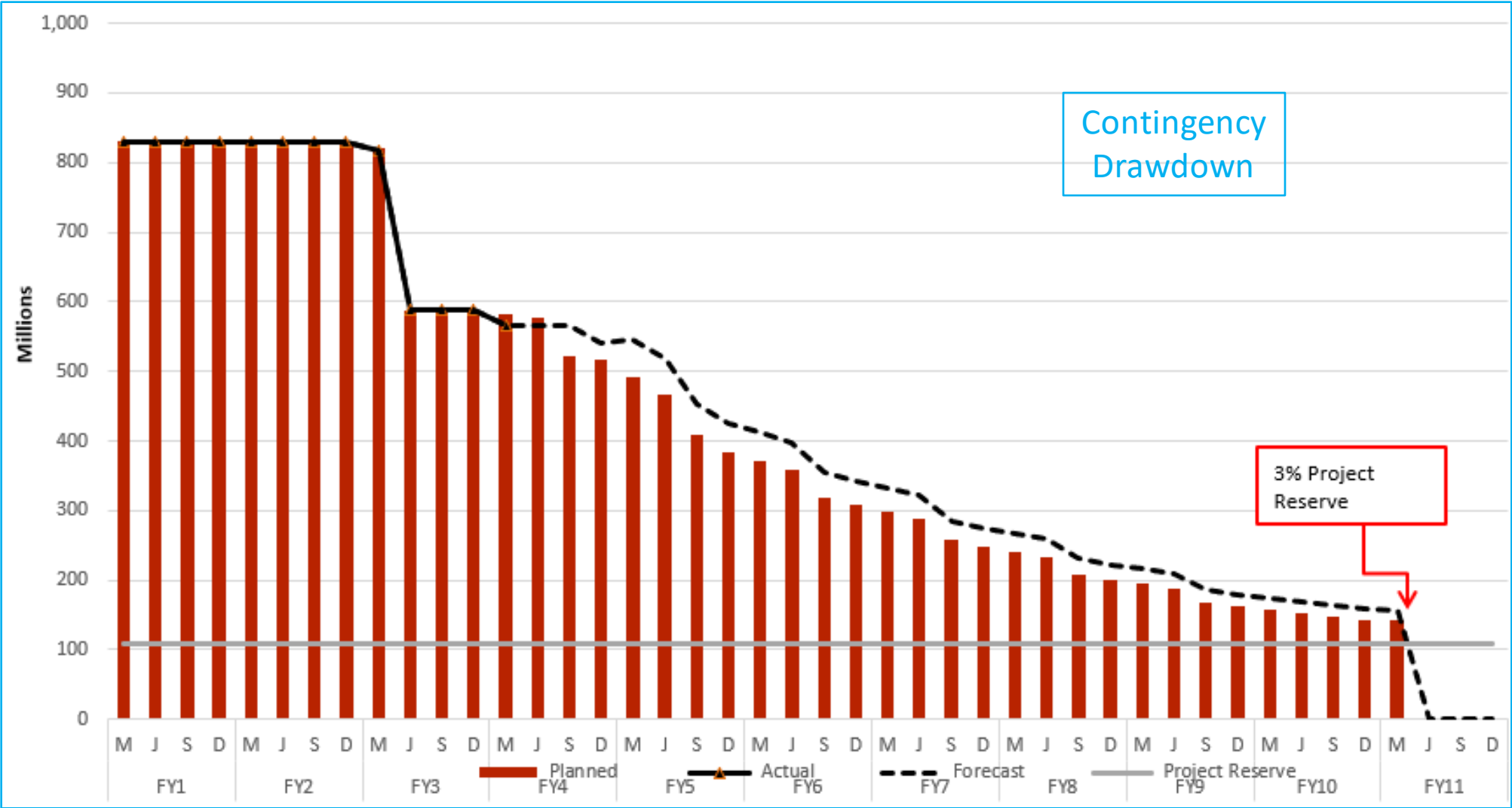
Forecast Review

MTA CONSTRUCTION PROJECT MANAGEMENT DIVISION		FORECAST FORM										POINT OF CONTACT:		
		CONTRACT: LEGAL										REPORT DATE: Sep 2020		
												STATUS DATE: NOV 2019		
												DUE DATE: 		
COST IMPACT:														
SCC CODE	ORIGINAL	APPROVED	CURRENT	PENDING		POTENTIAL CHANG	ALLOCATED	ETC		EAC	PERCENT	VAC		
LVL 2 TASK NO. DESCRIPTION	BUDGET	CHANGES	BUDGET	COMMITTED	NCURRED COST	EXPENDED	CHANGES	RISKS / CLAIMS	CONTINGENCY		SPENT	=BAC - EAC		
	a	b	c = a + b	d	e	f	g	h	i	j = (d + g + h) -	k = j + i	l = i / k	m = e - k	
CURRENT BUDGET														
80.06 2.2.03.06	CURRENT BUDGET - LEGAL SERVICES	\$ 28,633	\$ (3,776)	\$ 24,857										
80.06 3.2.03.06	CURRENT BUDGET - LEGAL SERVICES	\$ 3,071,456	\$ 9,973,775	\$ 13,045,231										
80.06 3.XX.80.06	ALLOCATED CONTINGENCY FOR LEGAL	\$ -	\$ 0	\$ 0										
80.06 4.2.03.06	CURRENT BUDGET - LEGAL SERVICES	\$ -	\$ -	\$ -										
80.06 4.XX.80.06	ALLOCATED CONTINGENCY FOR LEGAL	\$ -	\$ -	\$ -										
CURRENT BUDGET TOTAL		\$ 3,100,888	\$ 9,970,000	\$ 13,070,888	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -			
AWARD AMOUNT / APPROVED CO / MODS														
80.06 2.2.03.06	LEGAL SVCS			\$ 24,857	\$ 24,857	\$ 24,857				\$ -	\$ 24,857	100.0%		
80.06 3.2.03.06	LEGAL SVCS			\$ 9,419,012	\$ 9,419,012	\$ 9,419,012				\$ -	\$ 9,419,012	100.0%		
80.06 4.2.03.06	LEGAL SVCS			\$ -	\$ -	\$ -				\$ -	\$ -	0.0%		
AWARD AMOUNT / APPROVED CO / MODS TOTAL				\$ 9,443,869	\$ 9,443,869	\$ 9,443,869	\$ -	\$ -	\$ -	\$ -	\$ 9,443,869	100.0%		
PENDING CHANGES														
80.06 3.2.03.06	LEGAL SVCS - FY22						\$ 659,188			\$ 659,188	\$ 659,188			
80.06 3.2.03.06	LEGAL SVCS - FY21						\$ 750,000			\$ 750,000	\$ 750,000			
80.06 3.2.03.06	LEGAL SVCS - FY23						\$ 333,812			\$ 333,812	\$ 333,812			
PENDING CHANGES TOTAL							\$ 1,743,000			\$ 1,743,000	\$ 1,743,000			
POTENTIAL CHANGES / RISKS / CLAIMS														
80.06 3.2.03.06	LEGAL SVCS - FY20						\$ 1,613,219			\$ 1,613,219	\$ 1,613,219			
80.06 3.2.03.06	Risk#374						\$ 315,000			\$ 315,000	\$ 315,000			
90.01 3.7.01	Risk#374						\$ (45,000)			\$ (45,000)	\$ (45,000)			
POTENTIAL CHANGES / RISKS / CLAIMS TOTAL							\$ 1,883,219	\$ -	\$ 1,883,219	\$ 1,883,219				
ALLOCATED CONTINGENCY														
ALLOCATED CONTINGENCY TOTAL									\$ -	\$ 5,509,438	\$ 5,509,438			
TOTAL FORECAST		\$ 3,100,888	\$ 9,970,000	\$ 13,070,888	\$ 9,443,869	\$ 9,443,869	\$ 9,443,869	\$ 1,743,000	\$ 1,883,219	\$ -	\$ 3,626,219	\$ 13,070,888	72.3%	\$ -
SUBMITTED BY: _____		PROJECT POC		DATE		REVIEWED BY: _____		PROJECT CONTROL		DATE				

Forecast Form

Forecast reviewed with stakeholders

Generate Cost Contingency Drawdown

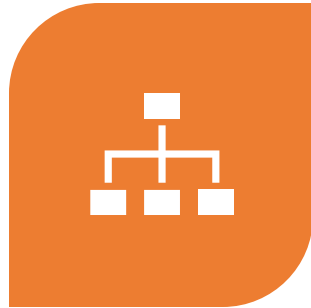


Cost Contingency Drawdown

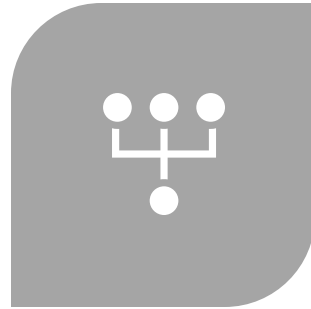
Contingency
Drawdown
Monthly
Report

TOTAL PROJECT CONTINGENCY DRAWDOWN									
	UNALLOCATED CONTINGENCY	PREVIOUS UNALLOCATED CONTINGENCY	CHANGE THIS MONTH	TOTAL UNALLOCATED CONTINGENCY		ALLOCATED CONTINGENCY	PREVIOUS ALLOCATED CONTINGENCY	CHANGE THIS MONTH	TOTAL ALLOCATED CONTINGENCY
	A								B
CONTINGENCY	\$ 42,570,000			\$ 42,570,000		CONTINGENCY	\$ -		
C0980		\$ (3,910,308)	\$ 2,215,361	\$ (1,694,947)		C0980	\$ 14,870,000	\$ -	\$ 14,870,000
Agency		\$ 1,193,617	\$ (1,321,432)	\$ (127,815)		Agency	\$ 7,484,338	\$ (594,336)	\$ 6,890,000
Art		\$ 400,000	\$ -	\$ 400,000		Art	\$ -	\$ -	\$ -
Audit		\$ -	\$ -	\$ -		Audit	\$ -	\$ -	\$ -
Control Control		\$ -	\$ -	\$ -		Control Control	\$ 300,000	\$ -	\$ 300,000
CMSS		\$ (1,506,101)	\$ (1,734,531)	\$ (2,240,632)		CMSS	\$ 9,475,818	\$ 1,127,318	\$ 10,603,136
Comm. Relations		\$ -	\$ -	\$ -		Comm. Relations	\$ 700,000	\$ -	\$ 700,000
Construction Mitigation		\$ -	\$ -	\$ -		Construction Mitigation	\$ 778,000	\$ -	\$ 778,000
CPJV		\$ (1,166,474)	\$ (2,331,842)	\$ (3,498,316)		CPJV	\$ 9,818,172	\$ (593,028)	\$ 9,225,144
DSDC		\$ (19,216)	\$ -	\$ (19,216)		DSDC	\$ 74,309	\$ (74,309)	\$ -
Env		\$ 368,274	\$ -	\$ 368,274		Env	\$ -	\$ -	\$ -
Labor Compliance		\$ -	\$ (138,640)	\$ (138,640)		Labor Compliance	\$ 48,717	\$ 138,640	\$ 187,357
Legal		\$ -	\$ -	\$ -		Legal	\$ 315,000	\$ -	\$ 315,000
MCAs		\$ (350,000)	\$ -	\$ (350,000)		MCAs	\$ 1,280,000	\$ -	\$ 1,280,000
Operations		\$ 250,000	\$ 392,000	\$ 642,000		Operations	\$ -	\$ 58,000	\$ 58,000
Other Professional Service		\$ (683,000)	\$ (345,630)	\$ (1,028,630)		Other Professional Service	\$ 600,000	\$ (140,000)	\$ 460,000
PMA		\$ (807,061)	\$ (319,630)	\$ (1,126,691)		PMA	\$ 807,061	\$ (622,896)	\$ 184,165
QA		\$ -	\$ -	\$ -		QA	\$ -	\$ -	\$ -
ROW		\$ (630,263)	\$ -	\$ (630,263)		ROW	\$ 630,263	\$ -	\$ 630,263
STOREFRONT		\$ -	\$ (11,426)	\$ (11,426)		STOREFRONT	\$ -	\$ 11,426	\$ 11,426
TAP		\$ 42,459	\$ 100,000	\$ 142,459		TAP	\$ -	\$ -	\$ -
THIRD PARTY		\$ 743,114	\$ (325,000)	\$ 418,114		THIRD PARTY	\$ 600,000	\$ (426,886)	\$ 173,114
UFS		\$ -	\$ -	\$ -		UFS	\$ -	\$ -	\$ -
Additional Project Contingency			\$ 17,400,000	\$ 17,400,000		Additional Project Contingency			
TOTAL	\$ 42,570,000	\$ (6,074,959)	\$ 11,041,530	\$ 46,496,571		TOTAL	\$ 35,410,114	\$ (1,116,071)	\$ 34,294,043
% Contingency	2.42%	-0.35%	0.78%	2.86%		% Contingency	1.45%	-0.06%	1.38%

Project Control Process Review Benefits



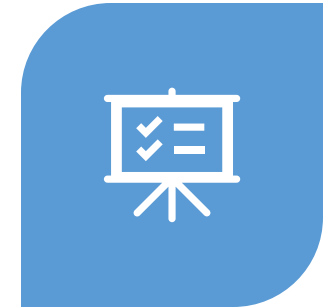
Confirm that program control procedures are being followed and, hence, best management practices



Assure consistency of program control processes and procedures for standardized control and reporting, especially important as agency capital programs expand



Provide opportunity for interface/feed-back with projects and continued enhancement of established procedures



Assure continuing state of readiness for projects that are subject to similar assessments and all projects that are subject to routine quality assurance audits

Project Control Process Review (1)

Item	Level	Cost Forecast Hierarchy
A	Level 1	Does the forecast depict a Level 1 WBS summary, e.g. SCC Codes 10-100?
B	Level 2	Does the forecast depict a Level 2 Management Cost, e.g. SCC line items?
C	Level 3	Does the forecast depict a Level 3 Analysis, e.g. control account detail?

Item	Level	Cost Forecast Monitoring
A	Staff Inputs	Is there evidence the Project Controller preparing the forecast draws on regular inputs from project staff and consultants including from regularly scheduled forecast update meetings?
B	Change Documentation	Does the forecast input process include current pending and executed changes?
C	Risk	Does the forecast input process include tracking of the latest risk status from the Risk Register and the development of Trends documentation to represent potential changes?
D	FTA SCC	Does the forecast input cover all SCC items including construction, professional services, real estate, utilities, etc?

Project Control Process Review (2)

Item	Level	Cost Forecast Measuring & Analysis
A	Measuring	Are forecasting inputs consolidated and measured against the budget?
B	Analysis	Evidence the status of cost variances are assessed for impact on contingency and schedule?

Item	Level	Cost Forecasting
A	Expenditures	Does Unifier reflect the latest actual costs and are these incorporated into the forecast?
B	Pending changes	Does Unifier reflect pending change order values and are these in the forecast?
C	Potential changes	Does the forecast show rough order of magnitude value for cost trends?
D	Risks	Does the forecast show the Expected Value (EV) of select risks from the Risk Register?
E	Schedule impacts	Is there evidence the schedule has been assessed for productivity impacts to the cost's sensitive to time?
F	Contingency	Does the forecast display Contingency available to manage potential changes/risks/trends?

Project Control Process Review (3)

Item	Level	Cost Forecast Quality Control / Quality Assurance
A	PC Lead Review	Are forecasts reviewed with the Project Control Lead and variances compared to previous editions?
B	Stakeholder Review	Are forecast inputs periodically reviewed with stakeholders (e.g. engineers, designers/architects, construction managers, resident engineers, technical experts, third parties, real estate managers, start-up managers, etc.) for perspectives on forecast results?
C	PC Lead Approval	Is there evidence the Project Control Lead confirms the above steps before recommending approval of forecast to the Project Manager?
D	PM Approval	Are forecasts formally approved by the Project Manager?

Item	Level	Cost Forecast Reporting
A	Cost Reports	Are forecasting inputs consolidated and measured against the budget?
B	Configuration Management	Evidence the status of cost variances are assessed for impact on contingency and schedule?
C	Unifier Links	Are Unifier links updated on a monthly basis?

Project Control Process Review (4)

Item	Level	Cost Forecast File Maintenance
A	Unifier	Are the monthly forecast updates saved in electronic form within Unifier?
B	SharePoint	Are the monthly forecast updates saved in PDF format in the project's Share Point File?
C	Level 3	Is there evidence in both electronic and PDF files of relevant notes and records related to the development of the forecast?

Item	Level	Contingency Drawdown
A	Risk Assessments	Was the Project Contingency baseline derived with benefit of the risk assessment process?
B	Management Reserve	Has a Management Reserve been established?

Project Control Process Review (5)

Item	Level	Contingency Drawdown – Allocated Contingency
A	WBS Assignment	Are contingency allocations assigned at Level 2 of the WBS (Standard Cost Category)?
B	Pending and Executed Changes	Is a Forecast process in place that captures executed and pending changes and that represent transactions to the contingency?
C	Risk Register	Is there a Risk Register for the project?
D	Risk Status	Is the Risk Register reviewed and status on a monthly basis?
E	Risk Expected Values	Are the Expected Values (EVs) of risks included in the Forecast as transactions to the contingency?

Item	Level	Contingency Drawdown – Updating and Managing Allocated Contingency
A	Forecast changes	Are monthly Forecast changes reflected as transactions against the allocated contingency, or unallocated contingency in the event allocations are not sufficient?
B	Surplus allocated contingency	Is there evidence that over-generous assignment of allocated contingency is returned to unallocated contingency?
C	Contingency Drawdown	After Forecast development, is the Project Contingency amount statused and reported in the cost contingency drawdown?

Project Control Process Review (6)

Item	Level	Contingency Drawdown – Synchronization
A	Contingency Adj	Is the total contingency adjusted on a monthly basis based on the updated Cost Forecast?
B	Contingency Adj	Is the Cost Forecast update reflective of new and closed risks and EV adjustments?
C	Contingency Adj	Is the Cost Forecast update reflective of changes to milestones affecting schedule contingency drawdowns and changes to initial SCC contingency allocations?
D	Contingency Adj	Is the Cost Forecast update reflective of contract executed and pending changes?

Item	Level	Contingency Drawdown – Monthly Reporting
A	Quality control	Is the Monthly Drawdown Plan approved by the PM?
B	Monthly report	Is the Monthly Drawdown Plan included in the monthly project status reporting?
C	Configuration management	Is the Monthly Drawdown Plan graphic transmitted to Configuration Management for documenting the update as a current Project Configuration Baseline document?
D	File maintenance	Is the Cost Contingency Drawdown Plan maintained as an Excel file in the project's shared file database?

CONCLUSION






Conclusion

- 🌀 Project controls is responsible to manage the cost baseline for management
- 🌀 Proper cost forecasts are critical for successful project delivery
- 🌀 Enhanced forward looking forecasts facilitate project cost predictability
- 🌀 Risk management considerations are a key component of enhanced cost forecasting
- 🌀 Must proactively manage risks and potential changes to successfully manage the project

ACTION PLAN

ACTION PLAN

What I expect you to do next:

-  Review our cost forecasting and contingency procedures
-  Review our project control process review procedure and checklists
-  Glean any enhancements to your project control processes
-  Strive for continuous improvement in project controls practices
-  Share your controls best practices for benefit of the community



THANK YOU

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